WHAT IS CLAIMED IS:

- A composition for oxidation dyeing of keratin fibers, comprising:
- at least one first oxidation base chosen from 1,8-bis(2,5-diaminophenoxy)-
- 3,5-dioxaoctane and acid-addition salts thereof;

pyrazolo[1,5-a]pyrimidines of formula (I):

- at least one second oxidation base chosen from para-phenylenediamine, para-toluenediamine, N,N-bis-(β-hydroxyethyl)-para-phenylenediamine, 2-(β-hydroxyethyl)-para-phenylenediamine, 2-(β-hydroxyethyl)-para-phenylenediamine, 2-isopropyl-para-phenylenediamine, 2-chloro-para-phenylenediamine, N-phenyl-para-phenylenediamine, 4,4'-diaminodiphenylamine, N-methoxyethyl-para-phenylenediamine, 2-n-propyl-para-phenylenediamine, 4-aminophenol, N-methyl-4-aminophenol, 2-hydroxymethyl-4-aminophenol, 3-methyl-4-aminophenol, 2-aminomethyl-4-aminophenol, 2-(β-hydroxyethylaminomethyl)-4-aminophenol, 2-methoxy-4-aminophenol, 2-methoxymethyl-4-aminophenol, tetraaminopyrimidine, 4-hydroxy-2,5,6-triaminopyrimidine, 4,5-diamino-1-ethyl-3-methylpyrazole, 4,5-diamino-N-methylpyrazole, 4,5-diamino-1-(4'-chlorobenzyl)pyrazole, N,N'-bis(β-hydroxyethyl)-N,N'-methylpyrazole, 4,5-diamino-1-(4'-chlorobenzyl)pyrazole, N,N'-bis(β-hydroxyethyl)-N,N'-

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bis(4'-aminophenyl)-1,3-diaminopropanol, 3-amino-6-dimethylaminopyridine and

Tp250

in which:

- R_1 , R_2 , R_3 and R_4 , which are identical or different, are chosen from a hydrogen atom, C_1 - C_4 alkyl radicals, aryl radicals, C_1 - C_4 hydroxyalkyl radicals, C_2 - C_4 polyhydroxyalkyl radicals, $(C_1$ - $C_4)$ alkoxy $(C_1$ - $C_4)$ alkyl radicals, C_1 - C_4 aminoalkyl radicals wherein said amino can be protected with a protective group chosen from acetyl, ureido and sulphonyl groups, $(C_1$ - $C_4)$ alkylamino $(C_1$ - $C_4)$ alkyl radicals,

 $di[(C_1-C_4)alkyl]amino(C_1-C_4)alkyl radicals, wherein said dialkyls can form a ring chosen from 5- and 6-membered aliphatic and heterocyclic rings,$

hydroxy(C_1 - C_4)alkylamino(C_1 - C_4)alkyl radicals, and di[hydroxy(C_1 - C_4)alkyl]amino-(C_1 - C_4)alkyl radicals;

- radicals X are identical or different, and are chosen from a hydrogen atom, C₁-C₄ alkyl radicals, aryl radicals, C₁-C₄ hydroxyalkyl radicals, C₂-C₄ polyhydroxyalkyl radicals, C₁-C₄ aminoalkyl radicals, (C₁-C₄)alkylamino(C₁-C₄)alkyl radicals,

di[(C₁-C₄)alkyl]amino(C₁-C₄)alkyl radicals, wherein said dialkyls can form a ring chosen from 5- and 6-membered aliphatic and heterocyclic rings,

hydroxy(C_1 - C_4)alkylamino(C_1 - C_4)alkyl radicals, di[hydroxy(C_1 - C_4)alkyl]amino(C_1 - C_4)alkyl radicals, amino radicals, (C_1 - C_4)alkyl-amino radicals, di[(C_1 - C_4)alkyl]amino radicals, halogen atoms, carboxylic acid groups and sulphonic acid groups;

- i is chosen from 0, 1, 2 and 3;
- p is chosen from 0 and 1;
- q is chosen from 0 and 1;
- n is chosen from 0 and 1;

with the proviso that:

- (i) the sum p + q is other than 0;
- (ii) when p + q is equal to 2, then p is 0 and the groups NR_1R_2 and NR_3R_4 occupy positions (2,3); (5,6); (6,7); (3,5) and (3,7);
- when p is equal to 1 and q is equal to 0, then n is 1 and the group NR₁R₂ and the OH group occupy positions (2,3); (5,6); (6,7); (3,5) and (3,7);
- (iv) when p is equal to 0 and q is equal to 1, then n is 1 and the group NR_3R_4 and the OH group occupy positions (2,3); (5,6); (6,7); (3,5) and (3,7);

and acid-addition salts thereof;

- and at least one coupler.



- The composition according to Claim 1, wherein said keratin fibers are human keratin fibers.
- 3. The composition according to Claim 2, wherein said human keratin fibers are hair.
- 4. The composition according to Claim 1 wherein said pyrazolo[1,5-a]pyrimidines of formula (I) are chosen from
- pyrazolo[1,5-a]pyrimidine-3,7-diamine
- 2-methylpyrazolo[1,5-a]pyrimidine-3,7-diamine;
- 2,5-dimethylpyrazolo[1,5-a]pyrimidine-3,7-diamine;
- pyrazolo[1,5-a]pyrimidine-3,5-diamine;
- 2,7-dimethylpyrazolo[1,5-a]pyrimidine-3,5-diamine;
- 3-aminopyrazolo[1,5-a]pyrimidin-7-ol;
- 3-amino-5-methylpyrazolo[1,5-a]pyrimidin-7-ol;
- 3-aminopyrazolo[1,5-a]pyrimidin-5-ol;
- 2-(3-aminopyrazolo[1,5-a]pyrimidin-7-ylamino)ethanol;
- 3-amino-7-β-hydroxyethylamino-5-methylpyrazolo[1,5-a]pyrimidine;
- 2-(7-aminopyrazolo[1,5-a]pyrimidin-3-ylamino)ethanol;
- 2-[(3-aminopyrazolo[1,5-a]pyrimidin-7-yl)-(2-hydrox\vertyl)amino]ethanol;
- 2-[(7-aminopyrazolo[1,5-a]pyrimidin-3-yl)-(2-hydroxy\end{vethyl)amino]ethanol;



- 5,6-dimethylpyrazolo[1,5-a]pyrimidine-3,7-diamine;
- 2,6-dimethylpyrazolo[1,5-a]pyrimidine-3,7-diamine;
- 2, 5, N-7, N-7-tetramethylpyrazolo[1,5-a]pyrimidine-3,7-diamine; and acid-addition salts thereof.
- 5. The composition according to Claim 1, wherein said at least one coupler is chosen from meta-phenylenediamines, meta-aminophenols, meta-diphenols, heterocyclic couplers, and acid-addition salts thereof.
- 6. The composition according to Claim 5, wherein said heterocyclic couplers are chosen from indoles, indolines, pyridines, pyrazolones, and acid-addition salts thereof.
- 7. The composition according to Claim 5, wherein said at least one coupler is chosen from 5-amino-2-methylphenol, 5-N-(β-hydroxyethyl)amino-2-methylphenol, 3-aminophenol, 1,3-dihydroxybenzene, 1,3-dihydroxy-2-methylbenzene, 4-chloro-1,3-dihydroxybenzene, 2,4-diamino-1-(β-hydroxyethyloxy)benzene, 2-amino-4-(β-hydroxyethylamino)-1-methoxybenzene, 1,3-diaminobenzene, 1,3-bis(2,4-diaminophenoxy)propane, 6-hydroxyindole, 4-hydroxyindole, 4-hydroxy-N-methylindole, 6-hydroxyindoline, 6-hydroxybenzomorpholine, 2,6-dihydroxy-4-methylpyridine, 1-H-3-methylpyrazol-5-one, 1-phenyl-3-methylpyrazol-5-one, and acid-addition salts thereof.



- 8. The composition according to Claim 1, wherein said at least one coupler is chosen from sesamol, α -naphthol, and acid-addition salts thereof.
- 9. The composition according to Claim 1, wherein said acid-addition salts are chosen from hydrochlorides, hydrobromides, sulphates, citrates, succinates, tartrates, lactates and acetates.
- 10. The composition according to Claim 4, wherein said acid-addition salts are chosen from hydrochlorides, hydrobromides, sulphates, citrates, succinates, tartrates, lactates and acetates.
- 11. The composition according to Claim 5, wherein said acid-addition salts are chosen from hydrochlorides, hydrobromides, sulphates, citrates, succinates, tartrates, lactates and acetates.
- 12. The composition according to Claim 6, wherein said acid-addition salts are chosen from hydrochlorides, hydrobromides, sulphates, citrates, succinates, tartrates, lactates and acetates.
- 13. The composition according to Claim 7, wherein said acid-addition salts are chosen from hydrochlorides, hydrobromides, sulphates, citrates, succinates, tartrates, lactates and acetates.
- 14. The composition according to Claim 8, wherein said acid-addition salts are chosen from hydrochlorides, hydrobromides, sulphates, citrates, succinates, tartrates,



lactates and acetates.

- 15. The composition according to Claim 1, wherein said at least one first oxidation base represents from 0.0005 to 12% by weight relative to the total weight of the composition.
- 16. The composition according to Claim 15, wherein said at least one first oxidation base represents from 0.005 to 6% by weight relative to the total weight of the composition.
- 17. The composition according to Claim 1, wherein said at least one second oxidation base represents from 0.0005 to 12% by weight relative to the total weight of the composition.
- 18. The composition according to Claim 17, wherein said at least one second oxidation base represents from 0.005 to 6% by weight relative to the total weight of the composition.
- 19. The composition according to Claim 1, wherein said at least one coupler represents from 0.0001 to 10% by weight relative to the total weight of the composition.
- 20. The composition according to Claim 19, wherein said at least one coupler represents from 0.005 to 5% by weight relative to the total weight of the composition.
- 21. The composition according to Claim 1, further comprising water or a mixture of water and at least one organic solvent.



- 22. The composition according to Claim 21, wherein said at least one organic solvent is chosen from C₁-C₄ alkanols, glycerol, glycols, glycol ethers, and aromatic alcohols.
- 23. The composition according to Claim 22, wherein said at least one organic solvent is chosen from ethanol, isopropanol, 2-butoxyethanol, propylene glycol, propylene glycol monomethyl ether, diethylene glycol monomethyl ether, monomethyl ether, benzyl alcohol, and phenoxyethanol.
- 24. The composition according to Claim 21, wherein said at least one organic solvent represents from 1 to 40% by weight relative to the total weight of the composition.
- 25. The composition according to Claim 24, wherein said at least one organic solvent represents from 5 to 30% by weight relative to the total weight of the composition.
- 26. The composition according to Claim 1, further comprising at least one cosmetic adjuvant.
- 27. The composition according to Claim 26, wherein said at least one cosmetic adjuvant is chosen from anionic, cationic, nonionic, amphoteric and zwitterionic surfactants; anionic, cationic, nonionic, amphoteric and zwitterionic polymers; inorganic and organic thickeners; antioxidants; penetration agents; sequestering agents;

fragrances; buffers; dispersing agents; conditioners; film-forming agents; ceramides; sunscreens; preserving agents; and opacifiers.

28. A composition for oxidation dyeing of keratin fibers comprising: 1,8-bis(2,5-diaminophenoxy)-3,5-dioxaoctane tetrahydrochloride monohydrate, para-phenylenediamine, 5-N-(β-hydroxyethyl)amino-2-methylphenol, ethyl alcohol, sodium metabisulphite, pentasodium diethylenetriaminepentaacetic acid, aqueous ammonia, and demineralized water.

29. A composition for oxidation dyeing of keratin fibers comprising:
1,8-bis(2,5-diaminophenoxy)-3,5-dioxaoctane tetrahydrochloride monohydrate,
para-phenylenediamine, 5-N-(β-hydroxyethyl)amino-2-methylphenol, ethanol,
dipotassium hydrogenphosphate, potassium dihydrogenphosphate, sodium
metabisulphite, pentasodium diethylenetriaminepentaacetic acid, and demineralized
water.

at least one oxidation base chosen from acid-addition salts of 1,8-bis(2,5-diaminophenoxy)-3,5-dioxaoctane, wherein said salts are chosen from hydrochlorides, hydrobromides, sulphates, citrates, succinates, tartrates, lactates and

acetates;

at least one second oxidation base chosen from

para-phenylenediamine, para-toluenediamine, N,N-bis-(β-hydroxyethyl)-para-phenylenediamine, 2-(β-hydroxyethyl)-para-phenylenediamine, 2,6-dimethyl-para-phenylenediamine, 2-isopropyl-para-phenylenediamine, 2-chloro-para-phenylenediamine, N-phenyl-para-phenylenediamine, 4,4'-diaminodiphenylamine, N-methoxyethyl-para-phenylenediamine, 2-n-propyl-para-phenylenediamine, 4-aminophenol, N-methyl-4-aminophenol, 2-hydroxymethyl-4-aminophenol, 3-methyl-4-aminophenol, 2-aminomethyl-4-aminophenol, 2-(β-hydroxyethylaminomethyl)-4-aminophenol, 2-methoxy-4-aminophenol, 2-methoxymethyl-4-aminophenol, tetraaminopyrimidine, 4-hydroxy-2,5,6-triaminopyrimidine, 4,5-diamino-1-ethyl-3-methylpyrazole, 4,5-diamino-N-methylpyrazole, 4,5-diamino-1-(4'-chlorobenzyl)pyrazole, N,N'-bis(β-hydroxyethyl)-N,N'-bis(4'-aminophenyl)-

1,3-diaminopropanol, 3-amino-6-dimethylaminopyridine and pyrazolo[1,5-a]pyrimidines

of formula (I):

$$(X)_{i} \xrightarrow{5} \stackrel{N}{\underset{6}{\bigvee}} \stackrel{3}{\underset{7}{\bigvee}} \stackrel{[NR_{1}R_{2}]_{p}}{\underset{[NR_{3}R_{4}]_{q}}{\bigvee}}$$

$$(I)$$

$$32$$

in which:

- R_1 , R_2 , R_3 and R_4 , which are identical or different, are chosen from a hydrogen atom, C_1 - C_4 alkyl radicals, aryl radicals, C_1 - C_4 hydroxyalkyl radicals, C_2 - C_4 polyhydroxyalkyl radicals, $(C_1$ - $C_4)$ alkoxy(C_1 - C_4)alkyl radicals, C_1 - C_4 aminoalkyl radicals wherein said amino can be protected with a protective group chosen from acetyl, ureido and sulphonyl groups, $(C_1$ - $C_4)$ alkylamino(C_1 - $C_4)$ alkyl radicals,

 $di[(C_1-C_4)alkyl]amino(C_1-C_4)alkyl radicals, wherein said dialkyls can form a ring chosen from 5- and 6-membered aliphatic and heterocyclic rings,$

hydroxy(C_1 - C_4)alkylamino(C_1 - C_4)alkyl radicals, and di[hydroxy(C_1 - C_4)alkyl]amino-(C_1 - C_4)alkyl radicals;

- radicals X are identical or different, and are chosen from a hydrogen atom, C_1 - C_4 alkyl radicals, aryl radicals, C_1 - C_4 hydroxyalkyl radicals, C_2 - C_4 polyhydroxyalkyl radicals, C_1 - C_4 aminoalkyl radicals, $(C_1$ - C_4)alkylamino $(C_1$ - C_4)alkyl radicals,

 $di[(C_1-C_4)alkyl]amino(C_1-C_4)alkyl radicals, wherein said dialkyls can form a ring chosen from 5- and 6-membered aliphatic and heterocyclic rings,$

hydroxy(C_1 - C_4)alkylamino(C_1 - C_4)alkyl radicals, di[hydroxy(C_1 - C_4)alkyl]amino(C_1 - C_4)alkyl radicals, amino radicals, (C_1 - C_4)alkyl-amino radicals, di[(C_1 - C_4)alkyl]amino radicals, halogen atoms, carboxylic acid groups and sulphonic acid groups;

-i is chosen from 0, 1, 2 and 3;

- p is chosen from 0 and 1;
- q is chosen from 0 and 1;
- n is chosen from 0 and 1;with the proviso that:
- (i) the sum p + q is other than 0
- (ii) when p + q is equal to 2, then n is 0 and the groups NR_1R_2 and NR_3R_4 occupy positions (2,3); (5,6); (6,7); (3,5) and (3,7);
- when p is equal to 1 and q is equal to 0, then n is 1 and the group NR₁R₂ and the OH group occupy positions (2,3); (5,6); (6,7); (3,5) and (3,7);
- (iv) when p is equal to 0 and q is equal to 1, then n is 1 and the group NR_3R_4 and the OH group occupy positions (2,3); (5,6); (6,7); (3,5) and (3,7);

and acid-addition salts thereof;

- and at least one coupler chosen from meta-phenylenediamines, meta-aminophenols, meta-diphenols, heterocyclic couplers, sesamol, α -naphthol, and acid-addition salts thereof.
 - 31. The composition according to Claim 30, wherein
- said pyrazolo[1,5-a]pyrimidines of formula (I) are chosen from
- pyrazolo[1,5-a]pyrimidine-3,7-diamine;
- 2-methylpyrazolo[1,5-a]pyrimidine-3,7-diamine;



- 2,5-dimethylpyrazolo[1,5-a]pyrimidine-3,7-diamine;
- pyrazolo[1,5-a]pyrimidine-3,5-diamine;
- 2,7-dimethylpyrazolo[1,5-a]pyrimidine-3,5-diamine;
- 3-aminopyrazolo[1,5-a]pyrimidin-7-ol;
- 3-amino-5-methylpyrazolo[1,5-a]pyrimidin-7-ol;
- 3-aminopyrazolo[1,5-a]pyrimidin-5-ol;
- 2-(3-aminopyrazolo[1,5-a]pyrimidin-7-ylaminò)ethanol;
- 3-amino-7-β-hydroxyethylamino-5-methylpyrazolo[1,5-a]pyrimidine;
- 2-(7-aminopyrazolo[1,5-a]pyrimidin-3-ylamino)ethanol;
- 2-[(3-aminopyrazolo[1,5-a]pyrimidin-7-yl)-(2-hydroxyethyl)amino]ethanol;
- 2-[(7-aminopyrazolo[1,5-a]pyrimidin-3-yl)-(2-hydroxyethyl)amino]ethanol;
- 5,6-dimethylpyrazolo[1,5-a]pyrimidine-3,7-diamine;
- 2,6-dimethylpyrazolo[1,5-a]pyrimidine-3,7-diamine;
- 2, 5, N-7, N-7-tetramethylpyrazolo[1,5-a]pyrimidine-3,7-diamine;

and acid-addition salts thereof; and

- said at least one coupler is chosen from
- 5-amino-2-methylphenol, 5-N-(β-hydroxyethyl)amino-2-methylphenol, 3-aminophenol,
- 1,3-dihydroxybenzene, 1,3-dihydroxy-2-methylbenzene, 4-chloro-
- 1,3-dihydroxybenzene, 2,4-diamino-1-(β-hydroxyethyloxy)benzene, 2-amino-



4-(β-hydroxyethylamino)-1-methoxybenzene, 1,3-diaminobenzene,

1,3-bis(2,4-diaminophenoxy)propane, 6-hydroxyindole, 4-hydroxyindole, 4-hydroxy-Nmethylindole, 6-hydroxyindoline, 6-hydroxybenzomorpholine, 2.6-dihydroxy-4methylpyridine, 1-H-3-methylpyrazol-5-one, 1-phenyl-3-methylpyrazol-5-one, and acidaddition salts thereof.

32. The composition according to Claim 1, further comprising at least one direct dye.

33. A process for oxidation dyeing of keratin fibers, comprising:

applying to keratin fibers to be dyed a dyeing composition;

developing a desired color in said keratin fibers with the aid of at least one oxidizing agent;

wherein said dyeing composition comprises:

- at least one first oxidation base chosen from 1,8-bis(2,5-diaminophenoxy)-

3,5-dioxaoctane and acid-addition salts thereof;

fat least one second oxidation base chosen from para-phenylenediamine, paratoluenédiamine, N,N-bis-(β-hydroxyethyl)-para-phenylenediamine, 2-(β-hydroxyethyl)-

para-phenylenediamine, 2,6-dimethyl-para-phenylenediamine, 2-isopropyl-para-

phenylenediamine, 2-chloro-para-phenylenediamine, N-phenyl-para-phenylenediamine,

4,4'-diaminodiphenylamine, N-methoxyethyl-para-phenylenediamine, 2-n-propyl-para-

phenylenediamine, 4-aminophenol, N-methyl-4-aminophenol, 2-hydroxymethyl-4-aminophenol, 3-methyl-4-aminophenol, 2-aminomethyl-4-aminophenol, 2-(β-hydroxyethylaminomethyl)-4-aminophenol, 2-methoxy-4-aminophenol, 2-methoxy-4-aminophenol, 2-methoxymethyl-4-aminophenol, tetraaminopyrimidine, 4-hydroxy-2,5,6-triaminopyrimidine, 4,5-diamino-1-ethyl-3-methylpyrazole, 4,5-diamino-N-methylpyrazole, 4,5-diamino-1-(4'-chlorobenzyl)pyrazole, N,N'-bis(β-hydroxyethyl)-N,N'-bis(4'-aminophenyl)-1,3-diaminopropanol, 3-amino-6-dimethylaminopyridine and pyrazolo[1,5-a]pyrimidines of formula (I):

$$(X)_{i} \xrightarrow{5} \overset{3}{\underset{N}{\underset{N}{\bigvee}}} \overset{1}{\underset{P}{\underset{N}{\underset{N}{\bigvee}}}} [NR_{1}R_{2}]_{p}$$

$$(OH)_{n} \xrightarrow{5} \overset{1}{\underset{N}{\underset{N}{\underset{N}{\bigvee}}}} [NR_{3}R_{4}]_{q}$$

$$(I)$$

in which:

- R_1 , R_2 , R_3 and R_4 , which are identical or different, are chosen from a hydrogen atom, C_1 - C_4 alkyl radicals, aryl radicals, C_1 - C_4 hydroxyalkyl radicals, C_2 - C_4 polyhydroxyalkyl radicals, $(C_1$ - C_4)alkyl radicals, C_1 - C_4 aminoalkyl radicals wherein said

amino can be protected with a protective group chosen from acetyl, ureido and sulphonyl groups, (C_1-C_4) alkylamino (C_1-C_4) alkyl radicals,

 $di[(C_1-C_4)alkyl]amino(C_1-C_4)alkyl radicals, wherein said dialkyls can form a ring chosen from 5- and 6-membered aliphatic and heterocyclic rings,$

 $\label{eq:condition} \mbox{hydroxy}(\mbox{C}_1-\mbox{C}_4) \mbox{alkylamino}(\mbox{C}_1-\mbox{C}_4) \mbox{alkylamino}$

(C₁-C₄)alkyl radicals;

- radicals X are identical or different, and are chosen from a hydrogen atom, C_1 - C_4 alkyl radicals, aryl radicals, C_1 - C_4 hydroxyalkyl radicals, C_2 - C_4 polyhydroxyalkyl radicals,

 C_1 - C_4 aminoalkyl radicals, $(C_1$ - C_4)alkylamino $(C_1$ - C_4)alkyl radicals,

 $di[(C_1-C_4)alkyl]amino(C_1-C_4)alkyl$ radicals, wherein said dialkyls can form a ring chosen from 5- and 6-membered aliphatic and heterocyclic rings,

hydroxy(C_1 - C_4)alkylamino(C_1 - C_4)alkyl radicals, di[hydroxy(C_1 - C_4)alkyl]amino(C_1 - C_4)alkyl-amino radicals, di[(C_1 - C_4)alkyl]amino radicals, helegan stars and available of the latest and the

halogen atoms, carboxylic acid groups and sulphonic acid groups;

- i is chosen from 0, f, 2 and 3;
- p is chosen from \emptyset and 1;
- q is chosen from 0 and 1;
- n is chosen from 0 and 1;

with the proviso that:

- (i) the sum p + q is other than 0;

- (ii) when p + q is equal to 2, then n is 0 and the groups NR_1R_2 and NR_3R_4 occupy positions (2,3); (5,6); (6,7); (3,5) and (3,7);

(iii) when p is equal to 1 and q is equal to 0, then n is 1 and the group NR_1R_2 and the OH group occupy positions/(2,3); (5,6); (6,7); (3,5) and (3,7);

when p is equal to 0 and $\not q$ is equal to 1, then n is 1 and the group NR $_3$ R $_4$ and the OH group occupy positions (2,3); (5,6); (6,7); (3,5) and (3,7);

and acid-addition salts thereof;

- and at least one coupler.

- 34. The process according to Claim 33, wherein said dyeing composition further comprises at least one acidifying agent.
- 35. The process according to Claim 34, wherein said at least one acidifying agent is chosen from inorganic acids, organic acids, carboxylic acids, and sulphonic acids.
- 36. The process according to Claim 34, wherein said at least one acidifying agent is chosen from hydrochloric acid, orthophosphoric acid, sulphuric acid, acetic acid, tartaric acid, citric acid and lactic acid.
- 37. The process according to Claim 33, wherein said dyeing composition further comprises at least one basifying agent.

38. The process according to Claim 37, wherein said at least one basifying agent is chosen from aqueous ammonia, alkaline carbonates, alkanolamines, sodium hydroxide, potassium hydroxide, and compounds of formula (II):

(II)

in which

W is a propylene residue optionally having a substituent chosen from a hydroxyl group and C_1 - C_6 alkyl radicals; R_5 , R_6 , R_7 and R_8 , which may be identical or different, are chosen from a hydrogen atom, C_1 - C_6 alkyl and C_1 - C_6 hydroxyalkyl radicals.

- 39. The process according to Claim 33, wherein said developing occurs at an acidic pH.
- 40. The process according to Claim 39, wherein said acidic pH ranges from 3 to 5.7.
- 41. The process according to Claim 33, wherein said developing occurs at a neutral pH.
- 42. The process according to Claim 33, wherein said developing occurs at an alkaline pH.



- 43. The process according to Claim 42, wherein said alkaline pH is 10.
- 44. The process according to Claim 33, wherein said at least one oxidizing agent is added to said dyeing composition just prior to said applying of said dyeing composition.
- 45. The process according to Claim 33, wherein said at least one oxidizing agent is present in an oxidizing composition.
- 46. The process according to Claim 45, wherein said oxidizing composition is applied to said keratin fibers simultaneously with said applying of said dyeing composition.
- 47. The process according to Claim 45, wherein said oxidizing composition is applied to said keratin fibers after said applying of said dyeing composition.
- 48. The process according to Claim 45, wherein said oxidizing composition has a pH ranging from 3 to12.
- 49. The process according to Claim 48, wherein said oxidizing composition has a pH ranging from 5 to 11.
- 50. The process according to Claim 45, wherein said oxidizing composition further comprises at least one cosmetic adjuvant.
- 51. The process according to Claim 50, wherein said at least one cosmetic adjuvant is chosen from anionic, cationic, nonionic, amphoteric and zwitterionic



surfactants; anionic, cationic, nonionic, amphoteric and zwitterionic polymers; inorganic and organic thickeners; antioxidants; penetration agents; sequestering agents; fragrances; buffers; dispersing agents; conditioners; film-forming agents; ceramides; sunscreens; preserving agents; and opacifiers.

- 52. The process according to Claim 33, wherein said at least one oxidizing agent is chosen from hydrogen peroxide, urea peroxide, alkali metal bromates, persalts and enzymes.
- 53. The process according to Claim 52, wherein said at least one oxidizing agent is chosen from perborates, persulphates, peroxidases, 2-electron oxidoreductases, and 4-electron oxygenases.
- 54. The process according to Claim 52, wherein said at least one oxidizing agent is chosen from uricases and lactases.

55. A multi-compartment dyeing device, comprising:

a first compartment,

a second compartment;

wherein said first compartment contains a dyeing composition comprising:

- at least one first oxidation base chosen from 1,8-bis(2,5-diaminophenoxy)-
- 3,5-dioxaoctane and acid-addition salts thereof:
- at least one second oxidation base chosen from para-phenylenediamine, para-



toluenediamine, N,N-bis-(β-hydroxyethyl)-para-phenylenediamine, 2-(β-hydroxyethyl)-para-phenylenediamine, 2,6-dimethyl-para-phenylenediamine, 2-isopropyl-para-phenylenediamine, 2-chloro-para-phenylenediamine, N-phenyl-para-phenylenediamine, 4,4'-diaminodiphenylamine, N-methoxyethyl-para-phenylenediamine, 2-n-propyl-para-phenylenediamine, 4-aminophenol, N-methyl-4-aminophenol, 2-hydroxymethyl-4-aminophenol, 3-methyl-4-aminophenol, 2-aminomethyl-4-aminophenol, 2-(β-hydroxyethylaminomethyl)-4-aminophenol, 2-methoxy-4-aminophenol, 2-methoxymethyl-4-aminophenol, tetraaminopyrimidine, 4-hydroxy-2,5,6-triaminopyrimidine, 4,5-diamino-1-ethyl-3-methylpyrazole, 4,5-diamino-N-methylpyrazole, 4,5-diamino-1-(4'-chlorobenzyl)pyrazole, N,N'-bis(β-hydroxyethyl)-N,N'-bis(4'-aminophenyl)-1,3-diaminopropanol, 3-amino-6-dimethylaminopyridine and pyrazolo[1,5-a]pyrimidines of formula (I):

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$$(X)_{i} \xrightarrow{5} \begin{bmatrix} N \\ N \end{bmatrix}_{i} \begin{bmatrix} NR_{1}R_{2} \end{bmatrix}_{p} \\ [NR_{3}R_{4}]_{q} \end{bmatrix}$$

$$(I)$$

$$43$$

in which:

- R_1 , R_2 , R_3 and R_4 , which are identical or different, are chosen from a hydrogen atom, C_1 - C_4 alkyl radicals, aryl radicals, C_1 - C_4 hydroxyalkyl radicals, C_2 - C_4 polyhydroxyalkyl radicals, $(C_1$ - C_4)alkoxy(C_1 - C_4)alkyl radicals, C_1 - C_4 aminoalkyl radicals wherein said amino can be protected with a protective group chosen from acetyl, ureido and sulphonyl groups, $(C_1$ - C_4)alkylamino(C_1 - C_4)alkyl radicals,

 $di[(C_1-C_4)alkyl]amino(C_1-C_4)alkyl radicals, wherein said dialkyls can form a ring chosen from 5- and 6-membered aliphatic and heterocyclic rings,$

 $\label{eq:condition} \text{hydroxy}(C_1-C_4)\text{alkylamino}(C_1-C_4)\text{alkyl radicals, and di[hydroxy}(C_1-C_4)\text{alkyl]amino-} \\ (C_1-C_4)\text{alkyl radicals;}$

- radicals X are identical or different, and are chosen from a hydrogen atom, C_1 - C_4 alkyl radicals, aryl radicals, C_1 - C_4 hydroxyalkyl radicals, C_2 - C_4 polyhydroxyalkyl radicals, C_1 - C_4 aminoalkyl radicals $(C_1$ - C_4)alkylamino $(C_1$ - C_4)alkyl radicals,

 $di[(C_1-C_4)alkyl]amino(C_4-C_4)alkyl radicals, wherein said dialkyls can form a ring chosen from 5- and 6-membered aliphatic and heterocyclic rings,$

hydroxy(C_1 - C_4)alkylamino(C_1 - C_4)alkyl radicals, di[hydroxy(C_1 - C_4)alkyl]amino(C_1 - C_4)alkyl radicals, amino radicals, di[(C_1 - C_4)alkyl]amino radicals, halogen atoms, carboxylic acid groups and sulphonic acid groups;

- i is chosen from 0, 1, 2 and 3;



- p is chosen from 0 and 1;
- q is chosen from 0 and 1;
- n is chosen from 0 and 1;

with the proviso that:

- (i) the sum p + q is other than 0
- (ii) when p + q is equal to 2, then n is 0 and the groups NR_1R_2 and NR_3R_4 occupy positions (2,3); (5,6); (6,7); (3,5) and (3,7);
- (iii) when p is equal to 1 and q is equal to 0, then n is 1 and the group NR₁R₂ and the OH group occupy positions (2,3); (5,6); (6,7); (3,5) and (3,7);
- (iv) when p is equal to 0 and q is equal to 1, then n is 1 and the group NR_3R_4 and the OH group occupy positions (2,3); (5,6); (6,7); (3,5) and (3,7);

and acid-addition salts thereof;

- and at least one coupler;

wherein said second compartment contains an oxidizing composition comprising:

- at least one oxidizing agent.

56. A dyeing kit comprising:

a first container,

a second container;

wherein said first container contains a dyeing composition comprising:



- at least one first oxidation base chosen from 1,8-bis(2,6-diaminophenoxy)-
- 3,5-dioxaoctane and acid-addition\salts thereof:
- at least one second oxidation base chosen from para-phenylenediamine, para-toluenediamine, N,N-bis-(β-hydroxyethyl)-para-phenylenediamine, 2-(β-hydroxyethyl)-para-phenylenediamine, 2-(β-hydroxyethyl)-para-phenylenediamine, 2-isopropyl-para-phenylenediamine, 2-chloro-para-phenylenediamine, N-phenyl-para-phenylenediamine, 4,4'-diaminodiphenylamine, N-methoxyethyl-para-phenylenediamine, 2-n-propyl-para-phenylenediamine, 4-aminophenol, N-methyl-4-aminophenol, 2-hydroxymethyl-4-aminophenol, 3-methyl-4-aminophenol, 2-aminomethyl-4-aminophenol, 2-(β-hydroxyethylaminomethyl)-4-aminophenol, 2-methoxy-4-aminophenol, 2-methoxymethyl-4-aminophenol, tetraaminopyrimidine, 4-hydroxy-2,5,6-triaminopyrimidine, 4,5-diamino-1-ethyl-3-methylpyrazole, 4,5-diamino-N-methylpyrazole, 4,5-diamino-1-(4'-chlorobenzyl)pyrazole, N,N'-bis(β-hydroxyethyl)-N,N'-bis(4'-aminophenyl)-1,3-diaminopropanol, 3-amino-6-dimethylaminopyridine and pyrazolo[1,5-a]pyrimidines of formula (I):

$$(X)_{i} \xrightarrow{5} N \xrightarrow{3} 2 \qquad -[NR_{1}R_{2}]_{p}$$

$$(OH)_{n} \xrightarrow{5} N \xrightarrow{7} N \xrightarrow{7} N \xrightarrow{7} [NR_{3}R_{4}]_{q}$$

$$(I)$$

in which:

(C₁-C₄)alkyl radicals;

- R_1 , R_2 , R_3 and R_4 , which are identical or different, are chosen from a hydrogen atom, C_1 - C_4 alkyl radicals, aryl radicals, C_1 - C_4 hydroxyalkyl radicals, C_2 - C_4 polyhydroxyalkyl radicals, $(C_1$ - $C_4)$ alkoxy(C_1 - C_4)alkyl radicals, C_1 - C_4 aminoalkyl radicals wherein said amino can be protected with a protective group chosen from acetyl, ureido and sulphonyl groups, $(C_1$ - C_4)alkylamino(C_1 - C_4)alkyl radicals, dialkyls can form a ring chosen from 5- and 6-membered aliphatic and heterocyclic rings, hydroxy(C_1 - C_4)alkylamino(C_1 - C_4)alkyl radicals, and di[hydroxy(C_1 - C_4)alkyl]amino-

- radicals X are identical or different, and are chosen from a hydrogen atom, C_1 - C_4 alkyl radicals, aryl radicals, C_1 - C_4 hydroxyalkyl radicals, C_2 - C_4 polyhydroxyalkyl radicals, C_1 - C_4 aminoalkyl radicals, $(C_1$ - C_4)alkylamino $(C_1$ - C_4)alkyl radicals,





 $di[(C_1-C_4)alkyl]amino(C_1-C_4)alkyl$ radicals, wherein said dialkyls can form a ring chosen from 5- and 6-membered aliphatic and heterocyclic rings,

hydroxy(C_1 - C_4)alkylamino(C_1 - C_4)alkyl radicals, di[hydroxy(C_1 - C_4)alkyl]amino(C_1 - C_4)alkyl radicals, amino radicals, (C_1 - C_4)alkyl-amino radicals, di[(C_1 - C_4)alkyl]amino radicals, halogen atoms, carboxylic acid groups and sulphonic acid groups;

- i is chosen from 0, 1, 2 and 3;
- p is chosen from 0 and 1;
- q is chosen from 0 and 1;
- n is chosen from 0 and 1;

with the proviso that:

- (i) the sum p + q is other than 0;
- (ii) when p + q is equal to 2, then n is 0 and the groups NR_1R_2 and NR_3R_4 occupy positions (2,3); (5,6); (6,7); (3,5) and (3,7);
- (iii) when p is equal to 1 and q is equal to 0, then n is 1 and the group NR_1R_2 and the OH group occupy positions (2,3); (5,6); (6,7); (3,5) and (3,7);
- (iv) when p is equal to 0 and q is equal to 1, then n is 1 and the group NR_3R_4 and the OH group occupy positions (2,3); (5,6); (6,7); (3,5) and (3,7);

and acid-addition salts thereof;

- and at least one coupler;





wherein said second container contains an oxidizing composition comprising:
- at least one oxidizing agent.